	Application No.	Applicant(s)
Notice of Allowability	09/517,952	CRITZ ET AL.
	Examiner	Art Unit	
	Kandasamy Thangavelu	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *March 2, 2006*.

2. ☒ The allowed claim(s) is/are *54-69*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____.

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☒ Other *Clean copy of allowed claims*.

DETAILED ACTION

Introduction

1.   This communication is in response to the Applicants' communication dated March 2, 2006. Claims 1-2, 4-20, 22-36 and 38-53 were deleted. Claims 54-68 were added. Claims 54-68 of the application are pending.

Examiner's Amendment

2.   Authorization for this examiner's amendment was given in a telephone interview with Mr. Kevin J. Canning on April 10, 2006.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3.   The application has been amended as follows:

In the Specification:

In Page 1, Line 16, "complex mathematical models"

has been changed to

-- complex systems using mathematical models --.

In Page 2, Line 6, "faces my tradeoffs"

has been changed to

-- faces many tradeoffs --.

In Page 3, Line 10, "to advance the current state of a simulation model"

has been changed to

-- to advance the current simulation time of a simulation model --.

In Page 4, Lines 29-30, "simulate the model"

has been changed to

-- simulate the system using the model --.

In Page 5, Line 1, "advancing the model"

has been changed to

-- advancing the simulation time --.

In Page 5, Line 12, "controls the flow of generation engine"

has been changed to

-- controls the execution of generation engine --.

In Page 6, Line 26, "creation wizard by which for defining"

has been changed to

-- creation wizard for defining --.

In Page 7, Lines 13-14, "simulate the model, increment the model simulation by one or more time steps"

has been changed to

-- simulate the system using the model, increment the simulation time by one or more time steps --.

In Page 8, Line 2, "currently being edit"

has been changed to

-- currently being edited --.

In Page 8, Lines 12-13, "define various attributes"

has been changed to

-- defines various attributes --.

In Page 8, Line 27, "selected that presents"

has been changed to

-- selected values that presents --.

In the abstract:

Lines 15-16, "advance the state of the model"

has been changed to

-- advance the simulation time of the model --.

4.   In the claims:

Replace amended claims 54 to 60 with:

54.   A method for generating simulation reports based on simulation results
of a system, said method comprising:

a report generator receiving a selection of a template to generate a simulation
report based on results of a simulation of the system using a model, wherein the
template defines a plurality of components;

the report generator processing the plurality of components;

the report generator issuing a plurality of commands to a technical computing
environment, wherein one of the plurality of commands instructs the technical
computing environment to simulate the system using the model;

the report generator receiving data from the technical computing environment and
the simulation based on execution of the plurality of commands; and

the report generator generating the report incorporating the received simulation
data.

55.   The method of claim 54 further comprising:

the report generator issuing a command to change a parameter or an initial
condition of the model used for simulation.

56.   The method of claim 54 further comprising:

the report generator issuing a command to advance the simulation time by one or more time steps.

57.   The method of claim 54 further comprising:

the report generator issuing a command to modify the model by adding or removing one or more function blocks.

58.   The method of claim 54 further comprising:

the report generator controlling the simulation of the system using the model; and

the report generator generating the report on a state of the system at a specified simulation time.

59.   The method of claim 54, wherein the system is simulated by a simulator that interacts with the technical computing environment.

60.   The method of claim 54 further comprising:

creating an additional template using the plurality of components.

Replace amended claims 64-65 with:

64.   The method of claim 65 further comprising:

the report generator evaluating expressions in a calculation workspace of the technical computing environment, wherein the expressions are defined using the programming language of the technical computing environment.

65.   The method of claim 54, wherein a subset of the components defines a programming language having flow control constructs for use by the report generator and the technical computing environment.

Replace amended claims 67-68 with:

67.   A report generation system for generating simulation reports based on simulation results of a modeled system, said report generation system comprising:

a simulator for simulating the modeled system;

a technical computing environment that interacts with the simulator, the technical computing environment including a calculation workspace that stores definitions and data of the model; and

a report generator that:

receives a selection of a template to generate a simulation report based on results of a simulation of the modeled system, wherein the template defines a plurality of components;

processes the plurality of components;

issues a plurality of commands to the technical computing environment and controls the simulation of the modeled system; and

receives data from the technical computing environment and the simulation based

on execution of the plurality of commands;

wherein the report generator includes a generation engine that generates a report

based on the received simulation data.

68.   A medium storing computer executable instructions for generating

simulation reports based on simulation results of a system, the instructions including the

instructions for:

a report generator receiving a selection of a template to generate a simulation

report based on results of a simulation of the system using a model, wherein the

template defines a plurality of components;

the report generator processing the plurality of components;

the report generator issuing a plurality of commands to a technical computing

environment, wherein one of the plurality of commands instructs the technical

computing environment to simulate the system using the model;

the report generator receiving data from the technical computing environment and

the simulation based on execution of the plurality of commands; and

the report generator generating the report incorporating the received simulation

data.

Added following claim 69:

69.   The method of claim 65 further comprising:

the report generator issuing the plurality of commands to the technical

computing environment using a programming language provided by the technical

computing environment.

A clean copy of allowed claims is attached.

Reasons for Allowance

5.   Claims 54-69 of the application are allowed over prior art of record.

6.   The following is an Examiner's statement of reasons for the indication of

allowable subject matter:

The closest prior art of record shows:

(1) a knowledge based system to automatically generate electronic notebooks

containing various forms of online documentation and reports; the electronic notebooks

are generated from the knowledgebase that includes the classes that drive the system and

a network of objects that represent meta-information about the system; the reports are

generated from the instances created by a run of the system; the documentation system

automates document production and produces different kinds of documents; the object

system and the knowledge based system are implemented in Mathematica; the kernel in

Mathematica implements a very large set of functions; the support for the notebooks

provides communication between the user and the kernel; Mathematica notebooks

provide interactivity to make an area of a notebook cell to be active and to provide a

function to be used with that area; when the user clicks on that area, the function is

invoked (**Young et at.,** "A knowledge based electronic information and documentation

system", ACM 2000);

(2) modeling and analysis of a company's business processes to uncover

inefficiencies and to facilitate introduction of effective software support; a document

centered approach is used to take advantage of complex internal structure of the

documents to provide efficient means of document retrieval; petri nets method is used for

modeling the behavior of dynamic systems; individual documents are represented as

tokens; SGML nets are used to tightly integrate the modeling of the document structures

with document processing; complex document creation and manipulation are expressed

within the model; the elements of the SGML document are tree-structured conveying a

graphical representation of the document's hierarchical structure; graphical form of tree

expressions use document templates; (**Weitz et al.,** "SGML nets: Integrating document

and workflow modeling", IEEE 1998); and

(3) educational tutorial systems that utilize a time based model to control business

simulations of actual environment to teach new skills; the system provides the user with a

simulated environment that provides a business opportunity to understand and solve

optimally; the simulation model executes the business functions; an activity layer allows

the user to visually guide the simulation by passing inputs to the simulation and receiving

outputs from the simulation; as calculations are passed to and received from the

simulation, they are passed to intelligent coaching agent to generate feedback based on

rules; the feedback is received and displayed; the displays enable knowledge workers to

acquire complex skills rapidly; standard documents are automatically generated; the

documentation directory contains the standard documents and templates to be used by the

developer; the spreadsheets make calculations on the time interval data to provide ability

to show trends (**Lannert et al**, U. S. Patent 6,101,489).

None of these references taken either alone or in combination with the prior art of

record discloses a method for generating simulation reports based on simulation results

of a system, specifically including:

(Claim 54) "a report generator receiving a selection of a template to generate a

simulation report based on results of a simulation of the system using a model, wherein

the template defines a plurality of components;

the report generator processing the plurality of components;

the report generator issuing a plurality of commands to a technical computing

environment, wherein one of the plurality of commands instructs the technical

computing environment to simulate the system using the model".

None of these references taken either alone or in combination with the prior art of

record discloses a report generation system for generating simulation reports based on

simulation results of a modeled system, specifically including:

(Claim 67) "a report generator that:

receives a selection of a template to generate a simulation report based on results

of a simulation of the modeled system, wherein the template defines a plurality of

components;

processes the plurality of components;

issues a plurality of commands to the technical computing environment and controls the simulation of the modeled system".

None of these references taken either alone or in combination with the prior art of record discloses a medium storing computer executable instructions for generating simulation reports based on simulation results of a system, specifically including:

(Claim 68) "a report generator receiving a selection of a template to generate a simulation report based on results of a simulation of the system using a model, wherein the template defines a plurality of components;

the report generator processing the plurality of components;

the report generator issuing a plurality of commands to a technical computing environment, wherein one of the plurality of commands instructs the technical computing environment to simulate the system using the model".

7.   Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone
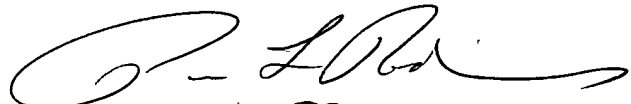
number is 571-272-3717. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez, can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2100 Group receptionist: 571-272-2100.

K. Thangavelu
Art Unit 2123
April 10, 2006

Paul L. Rodriguez   4/13/06

Primary Examiner
Art Unit 2125 2123

54.   A method for generating simulation reports based on simulation results of a system, said method comprising:

a report generator receiving a selection of a template to generate a simulation report based on results of a simulation of the system using a model, wherein the template defines a plurality of components;

the report generator processing the plurality of components;

the report generator issuing a plurality of commands to a technical computing environment, wherein one of the plurality of commands instructs the technical computing environment to simulate the system using the model;

the report generator receiving data from the technical computing environment and the simulation based on execution of the plurality of commands; and

the report generator generating the report incorporating the received simulation data.

55.   The method of claim 54 further comprising:

the report generator issuing a command to change a parameter or an initial condition of the model used for simulation.

56.   The method of claim 54 further comprising:

the report generator issuing a command to advance the simulation time by one or more time steps.

57.   The method of claim 54 further comprising:

the report generator issuing a command to modify the model by adding or removing one or more function blocks.

58.   The method of claim 54 further comprising:

the report generator controlling the simulation of the system using the model; and

the report generator generating the report on a state of the system at a specified simulation time.

59.   The method of claim 54, wherein the system is simulated by a simulator that interacts with the technical computing environment.

60.   The method of claim 54 further comprising:

creating an additional template using the plurality of components.

61.   The method of claim 54 further comprising:

generating an intermediate representation of the report.

62.   The method of claim 54 further comprising:

executing an external process to change a state of a calculation workspace of the technical computing environment,

63.   The method of claim 54, wherein the template is recursively defined.

64.　The method of claim 65 further comprising:

the report generator evaluating expressions in a calculation workspace of the technical computing environment, wherein the expressions are defined using the programming language of the technical computing environment.

65.　The method of claim 54, wherein a subset of the components defines a programming language having flow control constructs for use by the report generator and the technical computing environment.

66.　The method of claim 54, wherein the components are defined using an object orientated programming language.

67.　A report generation system for generating simulation reports based on simulation results of a modeled system, said report generation system comprising:

a simulator for simulating the modeled system;

a technical computing environment that interacts with the simulator, the technical computing environment including a calculation workspace that stores definitions and data of the model; and

a report generator that:

receives a selection of a template to generate a simulation report based on results of a simulation of the modeled system, wherein the template defines a plurality of components;

processes the plurality of components;

issues a plurality of commands to the technical computing environment and controls the simulation of the modeled system; and

receives data from the technical computing environment and the simulation based on execution of the plurality of commands;

wherein the report generator includes a generation engine that generates a report based on the received simulation data.

68.   A medium storing computer executable instructions for generating simulation reports based on simulation results of a system, the instructions including the instructions for:

a report generator receiving a selection of a template to generate a simulation report based on results of a simulation of the system using a model, wherein the template defines a plurality of components;

the report generator processing the plurality of components;

the report generator issuing a plurality of commands to a technical computing environment, wherein one of the plurality of commands instructs the technical computing environment to simulate the system using the model;

the report generator receiving data from the technical computing environment and the simulation based on execution of the plurality of commands; and

the report generator generating the report incorporating the received simulation data.

69.   The method of claim 65 further comprising:

the report generator issuing the plurality of commands to the technical computing

environment using a programming language provided by the technical computing

environment.